

Pennsylvania Hospital Interventional Radiology Anticoagulation/Antiplatelet and Coagulation Lab Guidelines

**These guidelines are guidelines, not hard policies. There will be times when exceptions may be warranted (eg acutely sick patients requiring a high risk procedure or outpatients with significant cardiac history who shouldn't stop antiplatelet medications). These instances should be left to the discretion of the attending IR physician performing the procedure.*

Category A - Low Risk Procedures

- **Procedures:**
 - Abscess Aspiration/New Abscess Drain Placement – Superficial
 - Bone Marrow Biopsy
 - Drain Exchanges – Abscess, Biliary, Cholecystostomy, G/GJ, PCN/PCNU/JJ
 - Fine Needle Aspiration – Superficial Lymph Node, Thyroid
 - IVC Filter Placement
 - IVC Filter Removal – Routine (ie Non-Complex Retrieval)
 - Joint Aspirations
 - Pain Injections – Peripheral Only, includes Bursae, Facets, Peripheral Joints (Hips/Knees/Shoulders), Peripheral Nerve Roots
 - Paracentesis
 - Thrombin injection
 - Vein Mapping
 - Venous Access – Non-Tunneled Catheter Placement (Dialysis Catheter, Pheresis Catheter, PICC), Small Bore Central Catheter, Tunneled Catheter Exchange
 - Venous Access Catheter Removal – eg TDC Removal (NOT Chest Port Removal)
 - Venous Pulmonary Interventions – Lysis Catheter Placement or Removal
- **Lab requirements/thresholds:**
 - Do NOT screen for platelets or INR
 - If labs known, then thresholds: plt >20k, INR <2.6
 - Exceptions:
 - Bone Marrow Biopsy – no plt threshold
 - Paracentesis – no INR threshold
- **Preoperative anticoagulation medication recommendations:**
 - Do NOT hold anticoagulation medications
- **Preoperative antiplatelet medication recommendations**
 - Do NOT hold antiplatelet medications
- **Postoperative anticoagulation and antiplatelet medication recommendations**
 - Not applicable (did not need to be held)

Category B1 - Moderate Risk Procedures

- **Procedures:**
 - Abscess Aspiration/New Drain Placement – Deep
 - Arterial Intervention 5-6 French Sheath – eg GI bleed, TACE, UAE
 - Biopsy – Superficial Core Biopsy or Transjugular Liver Biopsy
 - Chest Tube Placement
 - Dialysis Access Interventions – Fistulogram, Declot
 - GI Bleed Embolization
 - Renal Mass Embolization
 - Thoracentesis
 - TIPS Revision
 - Transarterial Chemoembolization (TACE)
 - Tunneled Drain Placement – Peritoneal or Pleural
 - Uterine Artery Embolization (UAE)
 - Venous Access – Chest Port Placement, Revision, or Removal
 - Venous Access – Tunneled Dialysis Catheter (TDC) Placement
 - Venous Non-Pulmonary Interventions – eg IVC Stent Placement, Pelvic Congestion Embolization, Varicocele Embolization
- **Lab requirements/thresholds:**
 - Screen for platelets and INR within past 3 months
 - If labs not available, then new labs not required unless on Coumadin
 - If labs are available, then thresholds: plt >50k, INR <1.8
- **Preoperative anticoagulation medication recommendations:**
 - Coumadin – hold 5 days, recheck INR day of procedure
 - DOAC – Xarelto (rivaroxaban), Eliquis (apixiban), Pradaxa (dabigatran), Arixtra (fondaparinux) – hold for 1 day if normal renal function, 2 days if GFR <60 (unless specifically on Eliquis with GFR <60 in which case hold for 3 days)
 - Heparin/Bivalirudin – turn off when calling for patient to come down to IR department
 - Lovenox (therapeutic) – hold for 24 hours
 - Prophylactic anticoagulation – do NOT hold
- **Preoperative antiplatelet medication recommendations**
 - Aspirin - do NOT hold
 - Plavix (clopidogrel), Brilinta (ticagrelor), Effient (prasugrel) - do NOT hold
- **Postoperative anticoagulation and antiplatelet medication recommendations**
 - Antiplatelet medications – not applicable (did not need to be held)
 - Coumadin – restart next day
 - DOAC – Xarelto (rivaroxaban), Eliquis (apixiban), Pradaxa (dabigatran), Arixtra (fondaparinux) – restart next day
 - Heparin/Bivalirudin – restart in 4 hours WITHOUT loading dose
 - Prophylactic anticoagulation – restart evening of procedure

Category B2 – Moderate-to-High Risk Procedures

- **Procedures**
 - Intrathecal injections (eg chemotherapy, baclofen)
 - Lumbar Puncture
 - Myelogram
- **Lab requirements/thresholds:**
 - Screen for platelets and INR within past 3 months
 - If labs not available, then new labs not required unless on Coumadin
 - If labs are available, then thresholds: plt >50k, INR <1.8
- **Preoperative anticoagulation medication recommendations:**
 - Coumadin – hold 5 days, recheck INR day of procedure
 - DOAC – Xarelto (rivaroxaban), Eliquis (apixiban), Pradaxa (dabigatran), Arixtra (fondaparinux) – hold for 1 day if normal renal function, 2 days if GFR <60 (unless specifically on Eliquis with GFR <60 in which case hold for 3 days)
 - Heparin/Bivalirudin – off two hours prior to procedure
 - Lovenox (therapeutic) – hold for 24 hours
 - Prophylactic anticoagulation – hold for 12 hours
- **Preoperative antiplatelet medication recommendations**
 - Aspirin - do NOT hold
 - Plavix (clopidogrel), Brilinta (ticagrelor), Effient (prasugrel) - hold for 5 days
- **Postoperative anticoagulation and antiplatelet medication recommendations**
 - Plavix – restart next day
 - Coumadin – restart next day
 - DOAC – Xarelto (rivaroxaban), Eliquis (apixiban), Pradaxa (dabigatran), Arixtra (fondaparinux) – restart next day
 - Heparin/Bivalirudin – restart in 4 hours WITHOUT loading dose
 - Prophylactic anticoagulation – restart evening of procedure

Category C - High Risk Procedures

- **Procedures:**
 - Ablation (Cryo or Microwave) – Liver, Lung, or Renal
 - Arterial Intervention Requiring 7 French Sheath (rare) – eg Central Arterial Stent
 - Biliary Drain New Placement – Percutaneous Cholecystostomy, Biliary Drain
 - Biopsy – Deep Biopsy (eg Retroperitoneal Lymph Node)
 - Biopsy – Solid Organ (eg Percutaneous Liver, Lung, Renal)
 - Epidural Injections – Blood Patch, Steroids
 - Gastrostomy/Gastrojejunostomy – New Placement
 - IVC Filter Removal – Complex
 - Kyphoplasty/Vertebroplasty
 - TIPS Placement
 - Urinary Tract Drain Placement – PCN, PCNU or Suprapubic Catheter, New Placement
- **Lab requirements/thresholds:**
 - Screen for plt and INR within 1 month of procedure – if labs not available, then new labs are required
 - Lab thresholds: plt >50k, INR <1.8
- **Preoperative anticoagulation medication recommendations:**
 - Coumadin – hold 5 days, recheck INR day of procedure
 - DOAC – Xarelto (rivaroxaban), Eliquis (apixiban), Pradaxa (dabigatran), Arixtra (fondaparinux) – hold for 1 day if normal renal function, 2 days if GFR <60 (unless specifically on Eliquis with GFR <60 in which case hold for 3 days)
 - Heparin/Bivalirudin – off two hours prior to procedure
 - Lovenox (therapeutic) – hold for 24 hours
 - Prophylactic anticoagulation – hold for 24 hours
- **Preoperative antiplatelet medication recommendations**
 - Aspirin – hold for 5 days
 - Plavix (clopidogrel), Brilinta (Ticagrelor), Effient (Prasugrel) – hold for 5 days
- **Postoperative anticoagulation and antiplatelet medication recommendations**
 - Antiplatelet medications – restart next day
 - Coumadin – restart next day
 - DOAC – Xarelto (rivaroxaban), Eliquis (apixiban), Pradaxa (dabigatran), Arixtra (fondaparinux) – restart next day
 - Heparin/Bivalirudin – restart in 4 hours WITHOUT loading dose
 - Prophylactic anticoagulation – restart next day

NPO/Sedation

COVID swab guidelines:

- Inpatients/ED: need negative COVID swab during same hospitalization (i.e., cannot be outpatient swab) within 7 days of procedure that uses sedation or is aerosolizing (e.g., thoracentesis)
 - Common procedures that require sedation: PCN, chest port, TDC, new drain placement, embolization, G-tube placement, most biopsies, fistulagram
 - Common procedures that do NOT require sedation: paracentesis, PICC, small bore central catheter, joint injection/aspiration

NPO status:

- Needs to be NPO for procedures that require sedation
 - So does NOT need to be NPO for paracentesis, thoracentesis, PICC, SBCC, joint injection/aspiration, etc.
 - If patient is on TEN via a Dobhoff tube, turn it off at midnight (exception: if Dobhoff is post-pyloric, in which case feeds can usually be continued)
- If in doubt, make them NPO